

INCREASING RUSSIAN ARCTIC ZONE EMPLOYABILITY

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Abstract

Russian Arctic zone strategic goal includes national interests' implementation providing both national security and sustainable socio-economic progress as well as Arctic innovative development.

However, it is a very well known fact that Arctic is a sparsely populated area. Over the past 10 years its population has decreased by 5%. Natural population increase in Arctic does not compensate the population outflow.

In this context, logical question arises: who will be responsible for the Arctic development? Who will work in the Arctic?

Both labour resources composition and movement analysis as well as forecast demand in qualified workers has shown that the situation in a labour market in terms of bridging demand and supply can be described as "almost balanced". At the same time both supply and demand details show a large number of structural imbalances. It means that even a limited population of the Arctic zone cannot find job places in accordance with their diplomas.

In order to solve this problem, there's a number of proposed measures:

- 1 Conceptual approach of the ILO and the ETF on "early warning system" development. Russian adapted version is already widely known as a "transparent labour market information environment".
- 2 Both development and implementation of up-to-date tools:
 - TOP-205 Arctic occupations in demand. It may be utilized by people as a reference point for choosing demanded occupations for the purpose of training and retraining; and by educational organizations for updating curricula;
 - "Occupational barometer", developed in Finland and adopted in Russia, shows the lists and geography of highly demanded occupations by regions
 - "Occupation chart" visually present key features of demanded occupations.

Thus, a comprehensive approach was suggested in order to solve the problem of Russian Arctic Zone's recruitment needs. Main solution is presented with information dissemination for the purpose of target groups' awareness on a labour market situation. Labour market information shall be presented both timely and visually on both demanded occupations and their characteristics.

This toolkit has already been developed and tested. Current task for today is to disseminate this toolkit, to engraft population with new culture of objective data application while decision-making.

1 INTRODUCTION

The Arctic is a macroregion of Russia's geostrategic interests, which today plays a crucial role in terms of both national security and the economy. The unique natural and resource potential of land and sea, the possibility of the Northern Sea Route as a key transport communication, ensure the state growing interest of the Arctic development. Strategic development of the Arctic zone of the Russian Federation (hereinafter referred to as AZ RF) is associated with ensuring this process by skilled personnel, the qualitative and quantitative composition of which corresponds to the Arctic development priorities.

This is one of determining factors for the successful AZ RF development.

Nowadays the obstacles for the Arctic development include: negative demographic processes, outflow of labour resources, lack of effective personnel training and imbalance between supply and demand for labour resources. This rises the questions: who will be responsible for the development of the Arctic? Who will work in the Arctic?

Russian leaders pay a lot of attention to this issue. In 2016 the Set of measures was approved at the federal level to ensure that AZ RF is fully supplied by workforce according to the demand of the regional economy until year 2020.

Taking into account all these facts it is necessary to develop tools to improve employment opportunities and overcome the emerging structural imbalances in staffing capacity for the strategic development of Russian Arctic.

2 METHODOLOGY

In order to solve the problem of improving employment opportunities in AZ RF a comprehensive approach was elaborated. It includes the following stages: identification of specific features and challenges in staffing capacity of Russian Arctic, revealing key ways to overcome these challenges, development of a concept and toolkit for creating transparent information environment of the Russian Arctic labour market.

A lot of methods were used in the study: methods of economic, statistical, normative and expert analysis.

3 RESULTS

3.1 Features of the Russian Arctic labour resources

The foreign experience of circumpolar states shows that demand for labour resources in the Arctic has been satisfied by migration from other regions. So, Alaska immigration plays a larger role than population natural increase. Historically, the population of this state was replenished by an incoming flow of people from other states with high unemployment.

The Russian Arctic is characterized by larger population and larger urban settlements compared to arctic territories of other countries. It can be explained by the settlement policy of northern territories, conducted by the USSR since early 1920s and 1930s in order to provide workforce for extractive industries [1]. As a result, today in the Russian Arctic permanently live 2.4 million people, which is more than in the arctic zone of 7 other Arctic countries of the world.

However, over the past 10 years the resident population of the Russian Arctic has been decreasing. During the period 2005-2015 the Arctic territories population has decreased by 5.6%, which amounts to about 140 thousand people. The largest population losses occurred in the Republic of Komi (Vorkuta city) and Murmansk region.

According to statistical data during recent years the population decline in the Russian Arctic is attributed to a significant migration outflow. However, the natural increase in AZ RF population per 1000 people is 3.9 with Russian average being just 0.2.

The highest natural increase is observed in Yamalo-Nenets Autonomous District (11.8), Krasnoyarsk Territory (8.4), Republic of Sakha (Yakutia) (8.2), and Nenets Autonomous Okrug (7.9). The migration outflow from AZ RF confirms the worldwide trend of population relocation to regions with more favorable natural and climatic conditions. The negative coefficient of migration growth (-10.3 per 1000 people) indicates the loss of labour potential of the Russian Arctic zone. The highest migration outflow of the population takes place in Komi Republic (Vorkuta city) and the Yamalo-Nenets Autonomous District. In 2015 the positive balance of migration was observed only in the Nenets Autonomous District.

The population structure is characterized by a higher share of active population: the average value in the Arctic regions is 71.8% against 69.5% for whole Russia. The level of employment in AZ RF also exceeds the national average – in year 2014 it amounted to 65.4%.

Another positive trend in formation of the labour potential of the Arctic is the predominance of younger population in comparison with Russia as a whole, as well as higher share of working-age population in the total population. Our analysis showed that the regional economy suffers from a shortage of labour force in most areas of AZ RF. Moreover, a detailed analysis of the professional composition of supply and demand on the labour market has revealed a large number of structural mismatches.

For example, in 2016 Russian statistics data [2] shows, that supply on the labour market (the number of job-seekers) in the Arctic regions exceeded demand (the number of vacancies) for the following

employment groups: managers, specialists of higher qualification, service workers and trade, unskilled workers. Surplus of demand over supply is typical for skilled workers occupations, including operators, machinists, and mid-level professionals (Fig. 1).

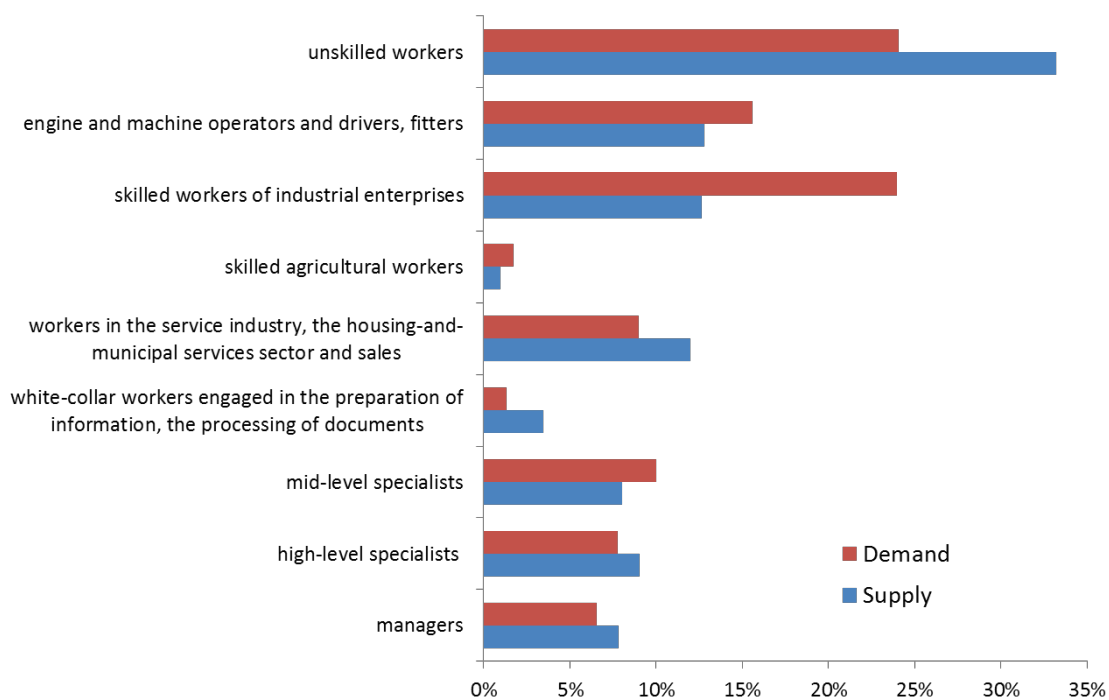


Fig. 1 - Comparative analysis of supply and demand on the labour market in the context of occupation groups, Rostrud, 2016.

It should be emphasized that both current situation and forecast indicate a mismatch between demand and supply on the Russian Arctic labour market in terms of professional composition. The paper by Alimov T., Shabaeva S., Stepus I. [3] provides comparative analysis of forecasted indicators of the demand for personnel with secondary vocational education, calculated taking into account the development priorities of the Russian Arctic and the number of graduates.

It shows that on average the secondary vocational education system (VES) in AZ RF provides only for about 50% of the staffing requirement needs. Taking into account additional sources of labour force supply, it can be noted that the gross need of the macroregion is almost fully covered, provided complete graduates employment.

Nevertheless, research of the meeting staff economy requirements has shown that first issue for VES to solve is structural conformity of admission and graduation to selected priorities of economic development.

The aforementioned trends on the Arctic labour market have a negative consequence – the population, despite being quite small in number, can not find employment matching their education. For this reason the most mobile and young part of the population are forced to leave the Arctic after graduation in search for employment.

Thus, on the one hand, despite the harsh climatic conditions, the Arctic zone of Russia has sufficient labour potential. On the other hand, there are serious threats for labour potential development – high migration outflow, as well as structural mismatch between the supply and demand of labour force. As a result, human resources are used inefficiently, and the regional economy bears losses. It indicates a significant potential for increasing the efficiency of using labour resources in the region.

3.2 Transparent information environment of the Russian Arctic labour market

Minimizing the mismatch between supply and demand on the labour market is a complicated problem that requires consideration of many factors: economic, social, and psychological. Consequently, approaches to solving this problem include a combination of different methods of administrative

regulation, economic incentives, and motivational and educational work. An important part of the latter group of methods is the information component.

The study of information open sources showed that implementation mechanisms for a qualitative policy of informing all population groups about the labour market of the AZ RF have not yet been worked out. The existing ones do not work fully operational and are not adapted for the needs of end-users.

The analysis of foreign experience shows that all developed countries have recognized the need for governmental intervention in overcoming information insufficiency in the labour market through the widest possible information dissemination [4]. For example, three authoritative organizations: the International Labour Organization (ILO), the European Training Foundation (ETF) and the European Center for the Development of Professional Education (Cedefop) in 2014 issued "A practical Guide on the use of labour market information for matching and anticipation of skills". To address the problem of information insufficiency in the labour market, these organizations proposed a conceptual approach to develop an "early warning system" [5]. It includes collection, processing, analysis, and provision of information about the past, current and future state of the economy in such a way that would be understandable and accessible for the end user (Figure 2). Following this approach, specific tools are being developed for providing population with simple and clear information [6].

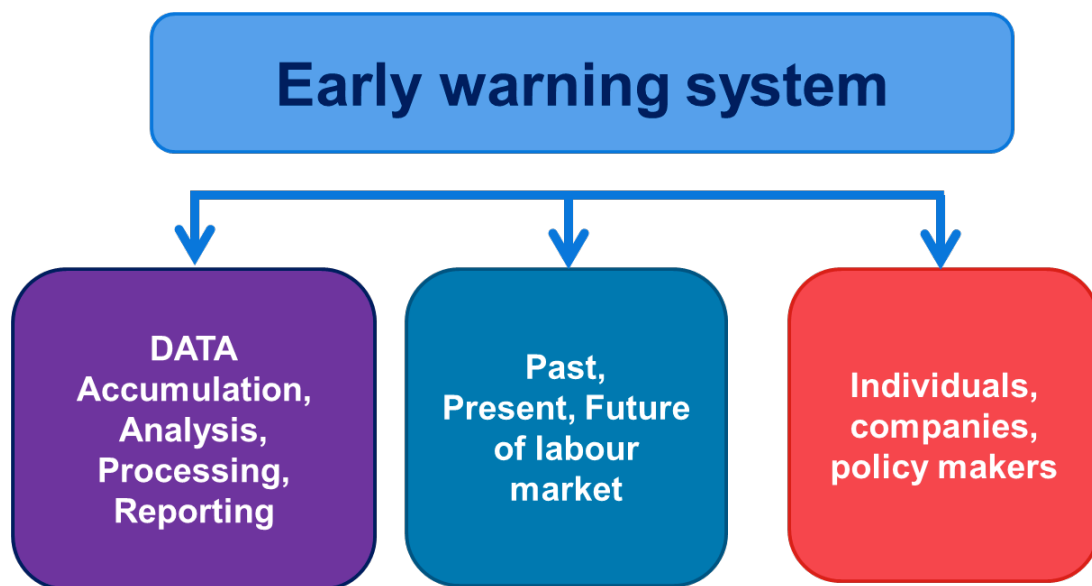


Fig. 2 – Early warning system.

To overcome information insufficiency in the Russian Arctic labour market, best foreign practices were used, including:

- Development and use of the concept of a transparent information environment for the AZ RF labour market;
- Development and implementation of tools for creating a transparent information environment.

The main goal of establishing and maintaining a transparent information environment of the Russian Arctic labour market is to ensure the effective information dissemination among all stakeholders about the current and prospective states of the labour market. This is necessary for creating conditions of "certainty" that allow taking justified decisions on sustainable balanced development of the economy and the labour market, the vocational education system, as well as on building a personal professional career.

To ensure easy access and wide coverage of population, as well as optimal interaction of users and participants, the transparent information environment of the Russian Arctic labour market was implemented as a federal Web-portal "Staffing capacity for the Russian Arctic Development", available at <http://arctic.labourmarket.ru>.

3.3 Development and implementation of modern information tools

Based on the world-best practices, tools for transparent information environment of the labour market were developed. They allow to disseminate information about the Russian Arctic labour market in a clear and understandable manner.

3.3.1 List of demanded occupations in the Russian Arctic

Identification of the regional occupations in demand is the basis for implementation of employment and educational policies.

Various sources were used to develop the list of demanded Arctic occupations: vacancies of Employment Services; occupations, demanded at the federal level; forecasted staffing needs of the Russian Arctic employers according to the Russian Ministry of Education and Science survey, and competencies of the WorldSkills Russia championship (Figure 3).



Fig. 3 - Sources of information for selecting demanded occupations in the Russian Arctic.

Analysis of Top-205 occupations of AZ RF indicated that demand for occupations is dominated by certain economic sectors, specific for the Arctic region, which are in fact "locomotives" or "drivers" for the regional development [7].

For example, the transport infrastructure development is the basis for economic development of the Arctic. The specific feature of the regional transportation network results in demand for sailors, captains, cooks, ship repairman, ship fitter. The sphere of mining requires personnel with such occupations as a driller, oil and gas production operator, underground electrician, mine surveyor, mining engineer, geologist, geophysicist, and other.

The developed list of highly-demanded Arctic occupations is the basis for determining the structure of personnel training, opening new curricula/programms and training courses, utilizing educational resources of other regions of Russia, and attracting interregional and foreign labour migrants. Also, the list of Arctic occupations is necessary for developing an information environment for employment policy and career-guiding activities of the Employment Services and educational organizations.

3.3.2 "Occupation chart"

The next tool of the transparent information environment of the Russian Arctic labour market are specially developed "Occupation chart". They contain descriptions of occupations and are necessary for informing the population, and stimulating the interest in demanded occupations, as well as general popularization of work activity in the Arctic.

A "Occupation chart" is a document with "user-friendly" description of the occupation essence and content of professional work, requirements for employee training, taking into account the "arctic" nature of professions – i.e. professionally important qualities for working in the Arctic. It also includes indicators of demand and wage level of the occupation in the regional labour market [8]. An example of a "Occupation chart" for a geologist is shown in Figure 4.

Occupation chart are designed for those population categories, which need information about the labour market and occupations.

Among them are high school graduates and their parents; graduates of vocational education system; unemployed; migrants; citizens, willing to change their activity and get retraining; teachers; citizens, leading career-guidance activities, etc.

Occupation chart are A5-sized paper leaflets for distribution to the public. They are also available on the web-portal "Staffing capacity for the Development of the Arctic Russia" at <http://arctic.labourmarket.ru/prof>

The advantage of developed Occupation chart is that information is presented using infographics in an attractive and "user-friendly" way, which is especially important when working with younger generation.

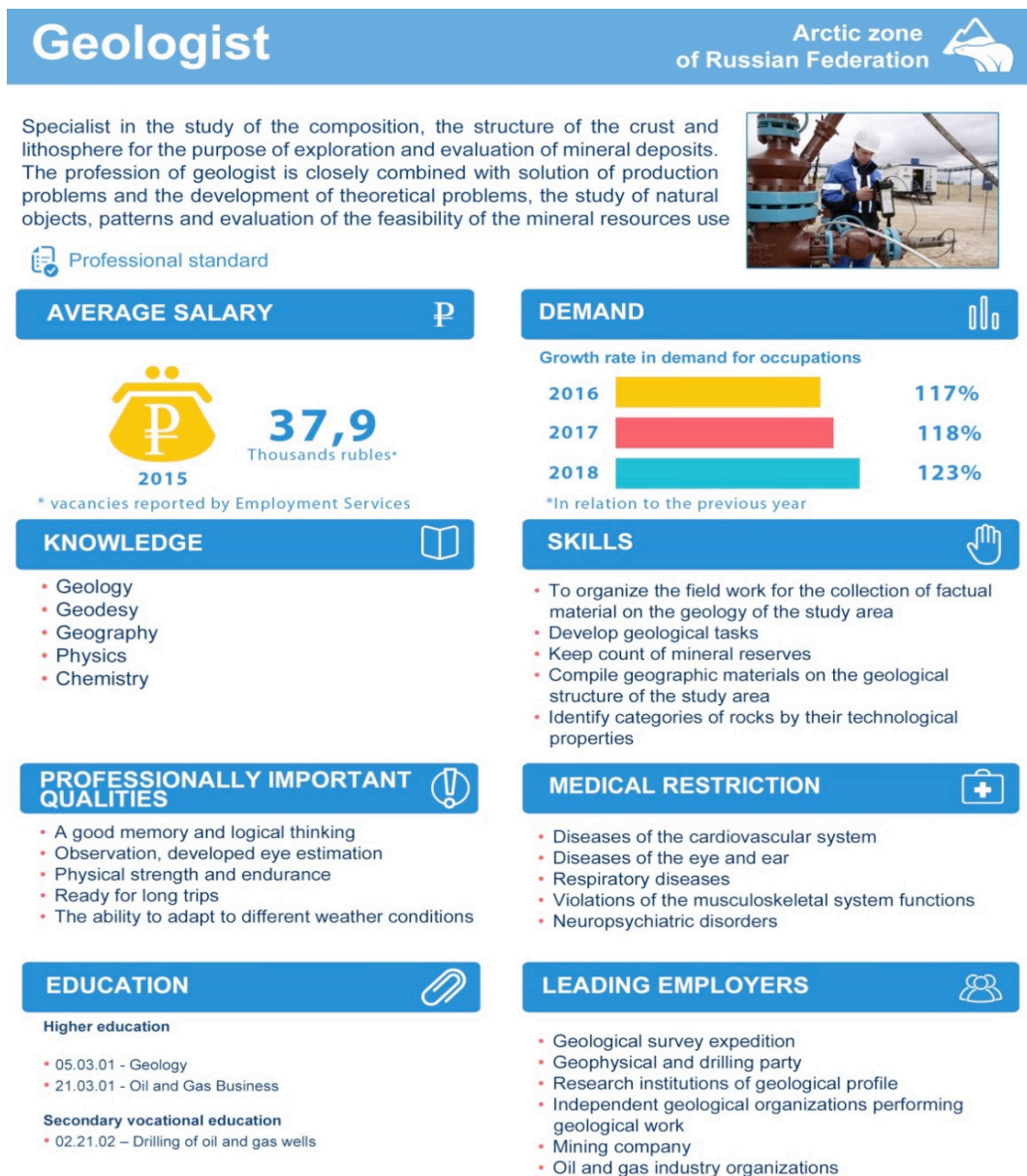


Fig. 4 – Occupation chart.

3.3.3 "Occupational barometer"

"Occupational barometer" is a qualitative method for assessing the current situation and informing all end-users of the labour market about the lack / surplus / balance of jobs in the context of occupations and regions of demand.

For the first time, this tool was developed in Finland to inform job-seekers, career counselors, migrants, employers, graduates, etc. about demand and supply on the labour market in different regions. This tool helps to analyze the labour market and to plan vocational training and retraining [9]. The effectiveness of this tool was confirmed by its rapid development in Finland itself, as well as in Nordic and Baltic countries.

Taking into account the simplicity and clarity of the occupational barometer, this method was also tested in the Russian Arctic.

"Occupational barometers" for the Arctic zone in general and for each of the eight entities are presented as special posters that vividly and clearly demonstrate information on the deficit, balance and surplus of occupations in the labour market of the Russian Arctic. In addition to posters, a map of the demand for occupations is drawn based on results of analysis and data processing. The balance of demand and supply for a particular occupation is indicated using infographics. The map uses three colors, depending on category, to which the occupation belongs – surplus, balance, deficit (Fig. 5).



Fig. 5 – Occupational barometer.

As another tool of the transparent information environment of the Russian Arctic labour market, the Occupational Barometer it is available on the web-portal "Staffing capacity for the Development of the Arctic Russia" at <http://arctic.labourmarket.ru/barometer>.

Creation of "Occupational barometers" for Russian Arctic regions and their distribution among the population and executive authorities will contribute to improving the balance of the regional labour market by means of timely informing the population about new emerging trends in the demand for occupations.

4 CONCLUSION

The permanent population of the Russian Arctic is a unique human capital that should be preserved and developed by improving the quality of life, education, working conditions.

The article suggests a comprehensive approach to solving the problem of providing the Russian Arctic with human resources. The approach involves dissemination of information in order to familiarize end-users with the labour market situation. The use of proposed transparent information environment tools for the Russian Arctic would lead to improving the balance of supply and demand of labour resources by means of:

- providing the regional population with an objective picture about the labour market in an accessible and understandable form;
- improving employment indicators, and filling open vacancies by providing information to job-seekers in a timely manner;
- better planning of vocational training and retraining of adults;

- promoting regional and professional labour mobility;
- career guidance.

The proposed toolkit was developed and tested. The current task for today is dissemination of this toolkit for developing among the Russian Arctic population a new culture of using objective data about the labour market in their decision-making.

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